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CALIFORNIA BELLOTA QUADRANGLE

Qr<sub>2</sub>f Qr2f Qr3 QtI [Tm?] Qmzf

Base form U.S. Army Corps of Engineers Belota 15' quadrangle, 1939.

This report is preliminary and has not been edited or reviewed for conformity with Geological Survey standards and nomenclature.

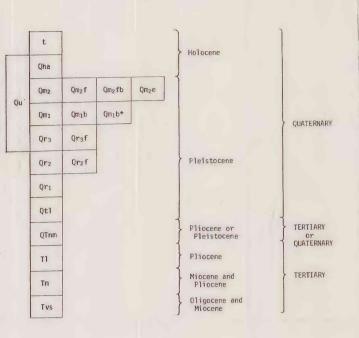
PRELIMINARY GEOLOGIC MAP OF CENOZOIC DEPOSITS

OF THE BELLOTA QUADRANGLE, CALIFORNIA

by

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### CORRELATION OF MAP UNITS



## DESCRIPTION OF MAP UNITS

- DREDGE TAILINGS
- HOLOCENE ALLUVIUM--Channel and levee deposits (Columbia, Honcut soils).
- UNDIFFERENTIATED ALLUVIUM AND COLLUVIUM--Includes Holocene, Mo-desto, and upper Riverbank (Bear Creek soils).

# MODESTO FORMATION

- - foothill-derived alluvial silt, clay, and minor sand forming terraces, upper fans, and following distributaries across lower fans; abundant volcanic detritus (Honcut, Wyman, Capay soils).
- foothill-derived basin and interdistributary overbank deposits; chiefly clay and silt (Landlow soils).
- arkosic alluvium forming Mokelumne River terraces and alluvial fan; chiefly sand; probably glacial outwash (Greenfield soils).
- basin alluvium derived from both the Mokelumne and Calaveras Rivers; includes arkosic alluvium, probably glacial outwash, and locally-derived materials; chiefly fine sand and silt (Stockton soils).
- $Qm_1b$  deposits overlain by 0.5 to 1.5 m of  $Qm_2\, fb$  deposits (Stockton soils). RIVERBANK FORMATION

- TURLOCK LAKE FORMATION--arkosic alluvium, probably glacial out-wash in part; includes some locally-derived alluvium in areas near the Calaveras River; chiefly sand with some silt and minor gravel (Ramona soils, as mapped by Cosby and others; more closely resemble Montpellier soils of more

- VALLEY SPRINGS FORMATION--rhyolitic sandstone and interbedded tuffs.

Most typical soil series (for this area) as mapped by the U.S. Soil

- Cosby, S. W., and Carpenter, E. J., 1937, Soil survey of the Lodi area, California: U.S. Dept. Agriculture Soil Survey, Ser. 1932, no. 14, 52 p.
- Marchand, D. E., and Allwardt, Alan, 1977, Late Cenozoic stratigraphic units, northeastern San Joaquin Valley, California: U.S. Geological Survey Open-File Report 77-748, 149 p.
- Piper, A. M., Gale, H. S., Thomas, H. E., and Robinson, T. W., 1939, Geology and ground-water hydrology of the Mokelumne area, California: U.S. Geological Survey Water-Supply Paper 780, 230 p., Plate 1, scale 1:63,360.
- Note: This map is one of a series of preliminary 15' geologic maps depicting the Cenozoic deposits of the Sacramento 10 x 20 sheet. Map units younger than the Mehrten Formation are differentiated ative soil development, superposition, and lithology, as disucussed by Marchand and Allwardt (1977). The reader is referred to Piper